In the Claims

Claims remaining in the application are as follows:

1. (Currently amended): A computer-implemented method comprising:
observing communication between a plurality of devices; ~~and~~
inferring a respective state of at least one device of the plurality of devices based upon the observing the communication;
the respective state of a first device of the at least one device is determined to be unfulfilled;
the respective state of the first device is determined to be unfulfilled when the observing the communication comprises
observing an address resolution protocol request comprising a destination address for the first device, and
observing that the first device does not respond to the address resolution protocol request prior to expiration of a time limit.

2. (Original): The method of claim 1 wherein
the inferring is performed without sending a packet to the at least one device.

3. (Original): The method of claim 1 wherein
the inferring is performed without participating in the communication with the at least one device.

4. (Original): The method of claim 1 wherein
the inferring is performed only by listening to the communication with the at least one device.

5. (Original): The method of claim 1 further comprising:
setting a designation for a first device of the plurality of devices to a threat when the first device receives a packet and
the respective state of the first device is unfulfilled.

6. (Original): The method of claim 5 further comprising:

changing the designation for the first device to a non-threat when subsequent communication initiated by the first device does not violate a rule for the communication.

7. (Original): The method of claim 1 further comprising:

setting a designation for a first device of the plurality of devices to a possible threat when

the communication is initiated by the first device, and

the communication initiated by the first device violates a rule.

8. (Original): The method of claim 7 further comprising:

changing the designation for the first device to a non-threat when subsequent communication initiated by the first device does not violate a second rule for the communication.

9. (Original): The method of claim 1 further comprising:

setting a designation for a first device of the at least one device to a possible threat based upon a packet configuration for a packet sent by the first device as part of the communication.

10. (Original): The method of claim 1 wherein

the respective state of a first device of the at least one device is determined to be unknown.

11. (Original): The method of claim 10 wherein

the respective state of the first device is determined to be unknown when the observing the communication comprises

observing that the first device fails to respond to the communication sent to the first device.

12. (Canceled)

13. (Canceled)

14. (Currently amended): The method of claim 1 ~~12~~ wherein
the respective state of the first device is determined to be unfulfilled when the first device receives an address resolution protocol request.

15. (Original): The method of claim 1 wherein
the respective state of a first device of the plurality of devices is determined to be used.

16. (Original): The method of claim 15 wherein
the respective state of the first device is determined to be used when the observing the communication comprises
observing that the first device performs one of sending and receiving a packet.

17. (Original): The method of claim 15 wherein
the respective state of the first device is determined to be used when the observing the communication comprises
observing that the first device received a packet when the respective state for the first device was unfulfilled, and
observing that the first device sent a reply to the packet within a time limit.

18. (Original): The method of claim 1 wherein
the respective state of a first device of the plurality of devices is determined to be virtual.

19. (Original): The method of claim 18 wherein
the respective state of the first device is determined to be virtual when the observing the communication comprises
observing that the first device received a packet when the respective state for the first device was unfulfilled, and
observing that the first device did not send a reply to the packet within a time limit.

20. (Original): The method of claim 1 wherein
the respective state of a first device of the plurality of devices is determined to be automatic.

21. (Original): The method of claim 20 wherein
the respective state of the first device is determined to be automatic when
an automatic reply is programmed to be sent to a second address when the first device receives a packet from the second address.

22. (Original): The method of claim 1 wherein
the respective state of the first device is determined to be omitted.

23. (Original): The method of claim 22 wherein
the respective state of the first device is determined to be omitted when
the observing is programmed to omit communication with the first device from the observing.

24. (Original): The method of claim 1 further comprising:
initializing the respective state of at least one device of the plurality of devices to unknown prior to the observing.

25. (Original): The method of claim 1 wherein
the plurality of devices communicates via a segment of a network.

26. (Original): The method of claim 1 further comprising:
maintaining the respective state for one device of the at least one device in a storage area.

27. (Original): The method of claim 1 wherein
storing information about at least one packet of a plurality of packets communicated between the plurality of devices.

28. (Original): The method of claim 27 wherein
the information comprises a respective source address and a respective destination address for each packet of the plurality of packets.

29. (Original): The method of claim 27 wherein
the information comprises a protocol for each packet of the plurality of packets.

30. (Original): The method of claim 27 wherein
the information comprises a time that each packet of the plurality of packets was sent.

31. (Currently amended): A processing system comprising:
~~tangible computer-readable medium encoded with :~~
observing means for observing communication between a plurality of devices; and
inferring means for inferring a respective state of at least one device of the plurality of devices based upon the observing the communication;
determining means for determining that the respective state of the first device is unfulfilled when the observing the communication comprises
observing an address resolution protocol request comprising a destination address for the first device, and
observing that the first device does not respond to the address resolution protocol request prior to expiration of a time limit.

32. (Currently amended): The system of claim 31 further comprising:
~~tangible computer-readable medium encoded with :~~
determining means for determining that the respective state is unknown when the observing the communication comprises
observing that the first device fails to respond to the communication sent to the first device.

33. (Canceled)

34. (Currently amended): The system of claim 31 further comprising:
~~tangible computer-readable medium encoded with :~~
determining means for determining that the respective state of the first device is unfulfilled when the first device receives an address resolution protocol request.

35. (Currently amended): The system of claim 31 further comprising:
~~tangible computer-readable medium encoded with~~ :
determining means for determining that the respective state of the first device is used
when the observing the communication comprises
observing that the first device performs one of sending and receiving a packet.

36. (Currently amended): The system of claim 31 further comprising:
~~tangible computer-readable medium encoded with~~:
determining means for determining that the respective state of the first device is used
when the observing the communication comprises
observing that the first device received a packet when the respective state for
the first device wais unfulfilled, and
observing that the first device sent a reply to the packet within a time limit.

37. (Currently amended): The system of claim 31 further comprising:
~~tangible computer-readable medium encoded with~~:
determining means for determining that the respective state of a first device of the
plurality of devices is virtual when the observing the communication comprises
observing that the first device received a packet when the respective state for
the first device was unfulfilled, and
observing that the first device failed to send a reply to the packet within a time
limit.

38. (Currently amended): The system of claim 31 further comprising:
~~tangible computer-readable medium encoded with~~:
determining means for determining that the respective state of the first device is
automatic when
an automatic reply is programmed to be sent to a second address when the first
device receives a packet from the second address.

39. (Currently amended): The system of claim 31 further comprising:
~~tangible computer-readable medium encoded with~~:
determining means for determining that the respective state of the first device is omitted when
the observing is programmed to omit communication with the first device from the observing.

40. (Currently amended): The system of claim 31 further comprising:
~~tangible computer-readable medium encoded with~~:
initializing means for initializing the respective state of at least one device of the plurality of devices to unknown prior to the observing.

41. (Currently amended): The system of claim 31 further comprising:
~~tangible computer-readable medium encoded with~~:
maintaining means for maintaining the respective state for one device of the at least one device in a storage area.

42. (Currently amended): The system of claim 31 further comprising:
~~tangible computer-readable medium encoded with~~:
storing means for storing information about at least one packet of a plurality of packets communicated between the plurality of devices.

43. (Currently amended): A system comprising:
~~tangible computer-readable medium encoded with:~~
an observing module configured to observe communication between a plurality of devices; and
an inferring module configured to infer a respective state of at least one device of the plurality of devices based upon the observing the communication;
a determining module configured to determine that the respective state of the first device is unfulfilled when the observing the communication comprises observing an address resolution protocol request comprising a destination address for the first device, and

observing that the first device does not respond to the address resolution protocol request prior to expiration of a time limit; and

a processor configured to interpret the observing module, inferring module, and determining module.

44. (Currently amended): The system of claim 43 ~~wherein the computer readable medium is~~ further comprising ~~encoded with~~:

the ~~a~~ determining module is further configured to determine that the respective state is unknown when the observing the communication comprises observing that the first device fails to respond to the communication sent to the first device.

45. (Canceled)

46. (Currently amended): The system of claim 43 ~~wherein the computer readable medium is~~ further comprising ~~encoded with~~:

the ~~a~~ determining module is further configured to determine that the respective state of the first device is unfulfilled when the first device receives an address resolution protocol request.

47. (Currently amended): The system of claim 43 ~~wherein the computer readable medium is~~ further comprising ~~encoded with~~:

the ~~a~~ determining module is further configured to determine that the respective state of the first device is used when the observing the communication comprises observing that the first device performs one of sending and receiving a packet.

48. (Currently amended): The system of claim 43 ~~wherein the computer readable medium is~~ further comprising ~~encoded with~~:

the ~~a~~ determining module is further configured to determine that the respective state of the first device is used when the observing the communication comprises observing that the first device received a packet when the respective state for the first device wais unfulfilled, and

observing that the first device sent a reply to the packet within a time limit.

49. (Currently amended): The system of claim 43 ~~wherein the computer~~ ~~readable medium is~~ further comprising ~~encoded with~~:

the ~~a~~ determining module is further configured to determine that the respective state of a first device of the plurality of devices is virtual when the observing the communication comprises

observing that the first device received a packet when the respective state for the first device was unfulfilled, and

observing that the first device failed to send a reply to the packet within a time limit.

50. (Currently amended): The system of claim 43 ~~wherein the computer~~ ~~readable medium is~~ further comprising ~~encoded with~~:

the ~~a~~ determining module is further configured to determine that the respective state of the first device is automatic when

an automatic reply is programmed to be sent to a second address when the first device receives a packet from the second address.

51. (Currently amended): The system of claim 43 ~~wherein the computer~~ ~~readable medium is~~ further comprising ~~encoded with~~:

the ~~a~~ determining module is further configured to determine that the respective state of the first device is omitted when

the observing is programmed to omit communication with the first device from the observing.

52. (Currently amended): The system of claim 43 ~~wherein the computer~~ ~~readable medium is~~ further comprising ~~encoded with~~:

an initializing module configured to initialize the respective state of at least one device of the plurality of devices to unknown prior to the observing.

53. (Currently amended): The system of claim 43 ~~wherein the computer readable medium is~~ further comprising ~~encoded with~~:

a maintaining module configured to maintain the respective state for one device of the at least one device in a storage area.

54. (Currently amended): The system of claim 43 ~~wherein the computer readable medium is~~ further comprising ~~encoded with~~:

a storing module configured to store information about at least one packet of a plurality of packets communicated between the plurality of devices.

55. (Currently amended): An article of manufacture comprising:

~~tangible~~ computer-readable medium encoded with computer interpretable instructions embodied therein ~~a computer program comprising~~ including:

observing instructions configured to cause a processor to observe communication between a plurality of devices; and

inferring instructions configured to cause the processor to infer a respective state of at least one device of the plurality of devices based upon the observing the communication;

determining instructions configured to cause the processor to determine that the respective state of the first device is unfulfilled when the observing the communication comprises

observing an address resolution protocol request comprising a destination address for the first device, and

observing that the first device does not respond to the address resolution protocol request prior to expiration of a time limit.

56. (Currently amended): The article of manufacture ~~computer-readable medium~~ of claim 55 further comprising:

the determining instructions further configured to cause the processor to determine that the respective state is unknown when the observing the communication comprises

observing that the first device fails to respond to the communication sent to the first device.

57. (Canceled)

58. (Currently amended): The article of manufacture ~~computer-readable medium~~ of claim 55 further comprising:

the determining instructions further configured to cause the processor to determine that the respective state of the first device is unfulfilled when the first device receives an address resolution protocol request.

59. (Currently amended): The article of manufacture ~~computer-readable medium~~ of claim 55 further comprising:

the determining instructions further configured to cause the processor to determine that the respective state of the first device is used when the observing the communication comprises

observing that the first device performs one of sending and receiving a packet.

60. (Currently amended): The article of manufacture ~~computer-readable medium~~ of claim 55 further comprising:

the determining instructions further configured to cause the processor to determine that the respective state of the first device is used when the observing the communication comprises

observing that the first device received a packet when the respective state for the first device wais unfulfilled, and

observing that the first device sent a reply to the packet within a time limit.

61. (Currently amended): The article of manufacture ~~computer-readable medium~~ of claim 55 further comprising:

the determining instructions further configured to cause the processor to determine that the respective state of a first device of the plurality of devices is virtual when the observing the communication comprises

observing that the first device received a packet when the respective state for the first device was unfulfilled, and

observing that the first device failed to send a reply to the packet within a time limit.

62. (Currently amended): The article of manufacture ~~computer-readable medium~~ of claim 55 further comprising:

the determining instructions further configured to cause the processor to determine that the respective state of the first device is automatic when

an automatic reply is programmed to be sent to a second address when the first device receives a packet from the second address.

63. (Currently amended): The article of manufacture ~~computer-readable medium~~ of claim 55 further comprising:

the determining instructions further configured to cause the processor to determine that the respective state of the first device is omitted when

the observing is programmed to omit communication with the first device from the observing.

64. (Currently amended): The article of manufacture ~~computer-readable medium~~ of claim 55 further comprising:

initializing instructions configured to cause the processor to initialize the respective state of at least one device of the plurality of devices to unknown prior to the observing.

65. (Currently amended): The article of manufacture ~~computer-readable medium~~ of claim 55 further comprising:

maintaining instructions configured to cause the processor to maintain the respective state for one device of the at least one device in a storage area.

66. (Currently amended): The article of manufacture ~~computer-readable medium~~ of claim 55 further comprising:

storing instructions configured to cause the processor to store information about at least one packet of a plurality of packets communicated between the plurality of devices.